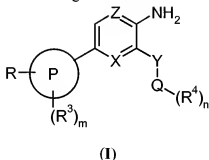


Amendment to the Claims:

This listing of claims will replace all previous versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently amended) A compound having the formula **I**



wherein:

Z is N;

Y is CONR⁵, NR⁵CO, SO₂NR⁵, NR⁵SO₂, CH₂NR⁵, NR⁵CONR⁵, CH₂CO, CO or CH₂O;

X is [[CH or]] N;

P is phenyl ~~or a 5 or 6 membered heteroaromatic ring containing one or more heteroatoms selected from N, O or S and said phenyl ring or 5 or 6 membered heteroaromatic ring may optionally be fused with a 5 or 6 membered saturated, partially saturated or unsaturated ring containing atoms independently selected from C, N, O or S;~~

Q is C₁₋₆alkyl, C₂₋₆alkenyl or C₂₋₆alkynyl;

R is CHO, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkyl(SO₂)NR¹R²,
 OC₀₋₆alkyl(SO₂)NR¹R², OC₁₋₆alkyl(SO)NR¹R², C₁₋₆alkyl(SO)NR¹R², C₀₋₆alkylINR¹(SO)R²,
 OC₁₋₆alkylINR¹(SO)R², C₀₋₆alkylINR¹(SO₂)NR¹R², OC₁₋₆alkylINR¹(SO₂)R²,
 C₀₋₆alkyl(SO₂)C₁₋₆alkylINR¹R², OC₀₋₆alkyl(SO₂)C₁₋₆alkylINR¹R², C₀₋₆alkyl(SO)C₁₋₆alkylINR¹R²,
 OC₁₋₆alkyl(SO)C₁₋₆alkylINR¹R², C₀₋₆alkylISC₁₋₆alkylINR¹R², OC₁₋₆alkylISC₁₋₆alkylINR¹R²,
 OC₁₋₆alkylIOC₁₋₆alkyl, C₁₋₆alkylIOC₁₋₆alkylINR¹R², OC₁₋₆alkylIOC₁₋₆alkylINR¹R²,
 C₀₋₆alkylCONR¹⁰R¹¹, OC₀₋₆alkylCONR¹R², OC₁₋₆alkylINR¹R², C₀₋₆alkylINR¹⁰(CO)R¹¹,
 OC₁₋₆alkylINR¹(CO)R², C₀₋₆alkylINR¹¹(CO)R¹⁰, C₀₋₆alkylCOR¹¹, OC₁₋₆alkylCOR¹,

$C_{0-6}alkylNR^{10}R^{11}$, $C_{0-6}alkylO(CO)R^{11}$, $OC_{1-6}alkylO(CO)R^1$, $C_{0-6}alkylC(NR^{10})NR^{10}R^{11}$,
 $C_{0-6}alkylC(NR^{11})N(R^{10})_2$, $OC_{0-6}alkylC(NR^1)NR^{10}R^2$, $C_{0-6}alkylNR^{10}(CO)OR^{11}$,
 $OC_{1-6}alkylNR^1(CO)OR^2$, $C_{0-6}alkylNR^{11}(CO)OR^{10}$, $OC_{1-6}alkylCN, NR^1OR^2$, $C_{0-6}alkyl(CO)OR^8$,
 $OC_{1-6}alkyl(CO)OR^1$, $NR^1(CO)NR^{10}R^2$, $NR^1(CO)(CO)R^2$, $NR^1(CO)(CO)NR^{10}R^2$, OR^{12} or SO_2R^1 ;
 R^1 and R^2 are independently selected from hydrogen, $C_{1-6}alkyl$, $C_{2-6}alkenyl$, $C_{2-6}alkynyl$,
 $C_{0-6}alkylC_{3-6}cycloalkyl$, $C_{0-6}alkylheterocycloalkyl$, $C_{1-6}alkylNR^7R^7$, $C_{0-6}alkylaryl$ and
 $C_{0-6}alkylheteroaryl$, wherein any $C_{1-6}alkyl$, $C_{2-6}alkenyl$, $C_{2-6}alkynyl$, $C_{0-6}alkylC_{3-6}cycloalkyl$,
 $C_{0-6}alkylheterocycloalkyl$, $C_{0-6}alkylaryl$, $C_{0-6}alkylheteroaryl$ may be substituted by one or more
 A;

R^1 and R^2 may together form a substituted 5 or 6 membered heterocyclic ring containing one or
 more heteroatoms independently selected from N, O or S, which heterocyclic ring may be
 optionally substituted by A;

R^3 is independently selected from halogen, nitro, CHO, $C_{0-6}alkylCN$, $OC_{1-6}alkylCN$,
 $C_{0-6}alkylOR^6$, $OC_{1-6}alkylOR^6$, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy,
 difluoromethoxy, trifluoromethoxy, $C_{0-6}alkylNR^6R^7$, $OC_{1-6}alkylNR^6R^7$,
 $OC_{1-6}alkylOC_{1-6}alkylNR^6R^7$, NR^6OR^7 , $C_{0-6}alkylCO_2R^6$, $OC_{1-6}alkylCO_2R^6$, $C_{0-6}alkylCONR^6R^7$,
 $OC_{1-6}alkylCONR^6R^7$, $OC_{1-6}alkylNR^6(CO)R^7$, $C_{0-6}alkylNR^6(CO)R^7$, $O(CO)NR^6R^7$,
 $NR^6(CO)OR^7$, $NR^6(CO)NR^6R^7$, $O(CO)OR^6$, $O(CO)R^6$, $C_{0-6}alkylCOR^6$, $OC_{1-6}alkylCOR^6$,
 $NR^6(CO)(CO)R^6$, $NR^6(CO)(CO)NR^6R^7$, SR^6 , $C_{0-6}alkyl(SO_2)NR^6R^7$, $OC_{1-6}alkylNR^6(SO_2)R^7$,
 $OC_{0-6}alkyl(SO_2)NR^6R^7$, $C_{0-6}alkyl(SO)NR^6R^7$, $OC_{1-6}alkyl(SO)NR^6R^7$, SO_2R^6 ,
 $C_{0-6}alkylNR^6(SO_2)NR^6R^7$, $C_{0-6}alkylNR^6(SO)R^7$, $OC_{1-6}alkylNR^6(SO)R^7$, $OC_{0-6}alkylSO_2R^6$,
 $C_{0-6}alkylISO_2R^6$, $C_{0-6}alkylSOR^6$, $C_{1-6}alkyl$, $C_{2-6}alkenyl$, $C_{2-6}alkynyl$, $C_{0-6}alkylC_{3-6}cycloalkyl$,
 $C_{0-6}alkylaryl$ and $C_{0-6}alkylheteroaryl$, wherein any $C_{1-6}alkyl$, $C_{2-6}alkenyl$, $C_{2-6}alkynyl$,
 $C_{0-6}alkylC_{3-6}cycloalkyl$, $C_{0-6}alkylaryl$ and $C_{0-6}alkylheteroaryl$ may be optionally substituted by
 one or more A;

R^4 is independently selected from halogen, nitro, CHO, CN, $OC_{1-6}alkylCN$, OR^6 , $OC_{1-6}alkylOR^6$,
 fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy,
 trifluoromethoxy, NR^6R^7 , $OC_{1-6}alkylNR^6R^7$, NR^6OR^7 , CO_2R^6 , $OC_{1-6}alkylCO_2R^6$, $CONR^6R^7$,
 $OC_{1-6}alkylCONR^6R^7$, $OC_{1-6}alkylNR^6(CO)R^7$, $NR^6(CO)R^7$, $O(CO)NR^6R^7$, $NR^6(CO)OR^7$,
 $NR^6(CO)NR^6R^7$, $O(CO)OR^6$, $O(CO)R^6$, COR^6 , $OC_{1-6}alkylCOR^6$, $NR^6(CO)(CO)R^6$,

$\text{NR}^6(\text{CO})(\text{CO})\text{NR}^6\text{R}^7$, SR^6 , $(\text{SO}_2)\text{NR}^6\text{R}^7$, $\text{OC}_{1-6}\text{alkylINR}^6(\text{SO}_2)\text{R}^7$, $\text{OC}_{0-6}\text{alkyl}(\text{SO}_2)\text{NR}^6\text{R}^7$, $(\text{SO})\text{NR}^6\text{R}^7$, $\text{OC}_{1-6}\text{alkyl}(\text{SO})\text{NR}^6\text{R}^7$, SO_3R^6 , $\text{NR}^6(\text{SO}_2)\text{NR}^6\text{R}^7$, $\text{NR}^6(\text{SO})\text{R}^7$, $\text{OC}_{1-6}\text{alkylINR}^6(\text{SO})\text{R}^7$, $\text{OC}_{0-6}\text{alkyl}(\text{SO}_2)\text{R}^6$, SO_2R^6 , SOR^6 , $\text{C}_{3-6}\text{cycloalkyl}$, phenyl, a 5 or 6 membered heteroaromatic ring containing one or more heteroatoms independently selected from N, O, or S, or a 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O, or S which heterocyclic group may be saturated or unsaturated, and said phenyl ring or 5 or 6 membered heteroaromatic ring or 5 or 6 membered heterocyclic ring may optionally be fused with a 5 or 6 membered saturated, partially saturated or unsaturated ring containing atoms independently selected from C, N, O or S wherein any $\text{C}_{3-6}\text{cycloalkyl}$, phenyl, 5 or 6 membered heteroaromatic ring with one or two heteroatoms selected independently from N, O, or S or a 5 or 6 membered heterocyclic containing one or two heteroatoms selected independently from N, O, or S; may be optionally be substituted by one or more A;

m is 0, ~~1, 2, 3 or~~ 4;

n is 0, 1, 2, 3 or 4;

R^5 is hydrogen or $\text{C}_{1-6}\text{alkyl}$

R^6 and R^7 are independently selected from hydrogen, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{2-6}\text{alkenyl}$, $\text{C}_{2-6}\text{alkynyl}$, $\text{C}_{0-6}\text{alkylC}_{3-6}\text{cycloalkyl}$, $\text{C}_{0-6}\text{alkylaryl}$, $\text{C}_{0-6}\text{alkylheteroaryl}$ and $\text{C}_{1-6}\text{alkylINR}^8\text{R}^9$;

R^6 and R^7 may together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S, which heterocyclic ring may be optionally substituted by A and wherein a CH_2 group may optionally be replaced by a CO group;

R^8 and R^9 are independently selected from hydrogen, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{2-6}\text{alkenyl}$, $\text{C}_{2-6}\text{alkynyl}$, $\text{C}_{0-6}\text{alkylC}_{3-6}\text{cycloalkyl}$, $\text{C}_{0-6}\text{alkylaryl}$ and $\text{C}_{0-6}\text{alkylheteroaryl}$;

R^8 and R^9 may together form a 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

R^{10} is hydrogen, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{2-6}\text{alkenyl}$, $\text{C}_{2-6}\text{alkynyl}$, $\text{C}_{0-6}\text{alkylC}_{3-6}\text{cycloalkyl}$, $\text{C}_{0-6}\text{alkylaryl}$, $\text{C}_{0-6}\text{alkylheteroaryl}$ or $\text{C}_{1-6}\text{alkylINR}^8\text{R}^9$;

R^{11} is $\text{C}_{1-6}\text{alkylINR}^8\text{R}^9$;

R¹⁰ and R¹¹ may together form a 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

R¹² is a 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S, which heterocyclic ring may be optionally substituted by A; wherein any C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylheterocycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl defined under R⁵ to R¹² may be substituted by one or more A; A is halo, oxo (=O), nitro, CHO, CN, OR⁶, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkylNR⁶R⁷, OC₁₋₆alkylNR⁶R⁷, CO₂R⁸, CONR⁶R⁷, NR⁶(CO)R⁶, O(CO)R⁶, COR⁶, SR⁶, (SO₂)NR⁶R⁷, (SO)NR⁶R⁷, SO₃R⁶, SO₂R⁶ or SOR⁶; as a free base or a pharmaceutically acceptable salt, solvate or solvate of a salt thereof.

Claim 2 (cancelled).

3. (Currently amended) A compound according to claim 1[[2]], wherein R¹ and R² in C₀₋₆alkyl(SO₂)NR¹R² together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S.

4. (Original) A compound according to claim 3, wherein said heterocyclic ring comprises one or more N heteroatoms and said heterocyclic ring is optionally substituted by A, preferably a C₁₋₆alkyl.

5. (Currently amended) A compound according to any one of claims [[1 to 4]] 1, 3 or 4, wherein Y is CONR⁵; R⁵ is hydrogen; Q is C₁₋₆alkyl; R⁴ is selected from: phenyl, 5 or 6 membered heteroaromatic ring containing one or more heteroatoms independently selected from N, O, or S

or a 5 or 6 membered heterocyclic ring containing one or two heteroatoms selected independently from N, O, or S which heterocyclic group may be saturated or unsaturated, CN, OR⁶, SO₂R⁶, NR⁶(CO)R⁷, (SO₂)NR⁶R⁷, and CONR⁶R⁷; and n is 1; said phenyl or 5 or 6 membered heterocyclic ring optionally substituted by A.

6. (Original) A compound according to claim 5, wherein A is selected from OR⁶, C₁₋₆alkyl, oxo (=O) and nitro; and R⁶ and/or R⁷ is selected from C₁₋₆alkyl and hydrogen.

7. (Currently amended) A compound which is

3-Amino-*N*-(2-cyanoethyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

3-Amino-*N*-(3-amino-3-oxopropyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

3-Amino-*N*-(2-nitrobenzyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

3-Amino-*N*-(2-methoxybenzyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

3-Amino-*N*-(3-morpholin-4-ylpropyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

3-Amino-*N*-[3-(4-methylpiperazin-1-yl)propyl]-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide;

as a free base or a pharmaceutically acceptable salt, solvate or solvate of a salt thereof;

3-Amino-*N*-(2-morpholin-4-ylethyl)-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide hydrochloride;

3-Amino-*N*-[2-(1*H*-imidazol-4-yl)ethyl]-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide hydrochloride;

3-Amino-*N*-[3-(1*H*-imidazol-1-yl)propyl]-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxamide hydrochloride;

3-Amino-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}-*N*-(2-thien-2-ylethyl)pyrazine-2-carboxamide hydrochloride;

3-Amino-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}-*N*-(thien-2-ylmethyl)pyrazine-2-carboxamide hydrochloride;
3-Amino-*N*-(2-methoxyethyl)-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}pyrazine-2-carboxamide hydrochloride;
3-Amino-*N*-(3-methoxypropyl)-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}pyrazine-2-carboxamide hydrochloride;
3-Amino-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}-*N*-[3-(2-oxopyrrolidin-1-yl)propyl]pyrazine-2-carboxamide hydrochloride;
3-Amino-*N*-(cyanomethyl)-6-{4-[(4-methylpiperazin-1-yl)sulfonyl]phenyl}pyrazine-2-carboxamide dihydrochloride;
3-Amino-6-[4-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-*N*-[2-(1*H*-pyrrol-1-yl)ethyl]-2-pyrazinecarboxamide hydrochloride;
3-Amino-6-[4-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-*N*-[2-(methylsulfonyl)ethyl]-2-pyrazinecarboxamide hydrochloride;
N-[2-(Acetylamino)ethyl]-3-amino-6-[4-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-2-pyrazinecarboxamide hydrochloride;
3-Amino-6-[4-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-*N*-[2-(2-oxo-1-imidazolidinyl)ethyl]-2-pyrazinecarboxamide hydrochloride;
3-Amino-*N*-[2-(aminosulfonyl)ethyl]-6-[4-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-2-pyrazinecarboxamide hydrochloride;
or as a free base or an alternative pharmaceutically acceptable salt, solvate or solvate of a salt thereof[;].

8. (Currently amended) A pharmaceutical formulation comprising as active ingredient a therapeutically effective amount of the compound according to any one of claims 1 or [[to]] 7 in association with pharmaceutically acceptable carriers or diluents.

Claims 9 to 16. (Cancelled)

17. (Currently amended) A method of prevention and/or treatment of conditions associated with glycogen synthase kinase-3, comprising ~~administering~~ administering to a mammal, including man in need of such prevention and/or treatment, a therapeutically effective amount of a compound of formula I as defined in any one of claims 1 or [[to]] 7.

18. (Currently amended) A method of prevention and/or treatment of dementia, Alzheimer's Disease, Parkinson's Disease, Frontotemporal dementia Parkinson's Type, Parkinson dementia complex of Guam, HIV dementia, diseases with associated neurofibrillar tangle pathologies and dementia pugilistica, comprising ~~administering~~ administering to a mammal, including man in need of such prevention and/or treatment, a therapeutically effective amount of a compound of formula I as defined in any one of claims 1 or [[to]] 7.

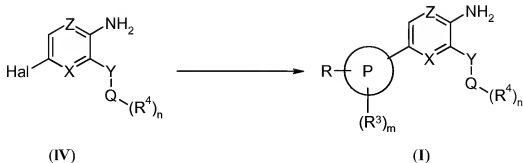
19. (Original) The method according to claim 18, wherein the prevention and/or treatment is for Alzheimer's Disease.

20. (Currently amended) A method of prevention and/or treatment of amyotrophic lateral sclerosis, corticobasal degeneration, Down syndrome, Huntington's Disease, ~~postencephalitic~~ postencephalitic parkinsonism, progressive supranuclear palsy, Pick's Disease, Niemann-Pick's Disease, stroke, head trauma and other chronic neurodegenerative diseases, Bipolar Disease, affective disorders, depression, schizophrenia, cognitive disorders, hair loss and contraceptive medication, Type I and Type II diabetes, diabetic neuropathy and diabetes related disorders, comprising ~~administering~~ administering to a mammal, including man in need of such prevention and/or treatment, a therapeutically effective amount of a compound of formula I as defined in any one of claims 1 or [[to]] 7.

21. (Currently amended) The method according to claim 18, wherein the prevention and/or treatment is of Type I [[and]] or Type II diabetes, diabetic neuropathy [[and]] or diabetes related disorders.

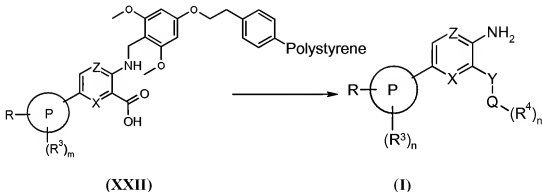
22. (Currently amended) A method of prevention and/or treatment of predemented states, Mild Cognitive Impairment, Age-Associated Memory Impairment, Age-Related Cognitive Decline, Cognitive Impairment No Dementia, mild cognitive decline, mild neurocognitive decline, Late-Life Forgetfulness, memory impairment and cognitive impairment, vascular dementia, dementia with Lewy bodies, Frontotemporal dementia and androgenetic alopecia, comprising ~~administering~~ administering to a mammal, including man in need of such prevention and/or treatment, a therapeutically effective amount of a compound of formula **I** as defined in any one of claims 1 or [[to]] 7.

23. (Original) A process for the preparation of a compound of formula **I** according to claim 1, wherein Y, X, Z, P, Q, R, R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², A, m and n are defined as in formula **I**, comprising of de-halogen coupling of a compound of formula **IV** with an appropriate aryl species;



to give a compound of formula **I**.

24. (Original) A process for the preparation of a compound of formula **I** according to claim 1, wherein Y, X, Z, P, Q, R, R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², A, m and n are defined as in formula **I**, comprising reacting of a compound of formula **XXII**:

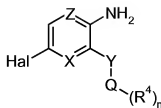


wherein the reaction is being performed by activation of a compound of formula **XXII** by treatment with a coupling agent or with an acyl halide reagent followed by treatment with the appropriate amine, followed by cleavage of the solid phase moiety by treatment with a suitable acid in a suitable solvent, and where the reaction temperature is between 0 °C and reflux, to give a compound of formula **I**.

25 and 26. (cancelled)

27. (Original) A compound which is
 4-(Pyrrolidin-1-ylsulfonyl)phenylboronic acid;
 4-[(4-Methylpiperazin-1-yl)sulfonyl]phenylboronic acid;
 as a free base or a salt, solvate or solvate of a salt thereof.

28. (Original) A compound of formula **IV**



(IV)

wherein

Y is CONR⁵, NR⁵CO, SO₂NR⁵, NR⁵SO₂, CH₂NR⁵NR⁵CONR⁵, CH₂CO, CO or CH₂O;

X is CH or N;

Z is N;

Q is C₁₋₆alkyl, C₂₋₆alkenyl or C₂₋₆alkynyl;

R⁴ is independently selected from halogen, nitro, CHO, CN, OC₁₋₆alkylCN, OR⁶, OC₁₋₆alkylOR⁶, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, NR⁶R⁷, OC₁₋₆alkylNR⁶R⁷, NR⁶OR⁷, CO₂R⁶, OC₁₋₆alkylCO₂R⁶, CONR⁶R⁷, OC₁₋₆alkylCONR⁶R⁷, OC₁₋₆alkylNR⁶(CO)R⁷, NR⁶(CO)R⁷, O(CO)NR⁶R⁷, NR⁶(CO)OR⁷, NR⁶(CO)NR⁶R⁷, O(CO)OR⁶, O(CO)R⁶, COR⁶, OC₁₋₆alkylCOR⁶, NR⁶(CO)(CO)R⁶, NR⁶(CO)(CO)NR⁶R⁷, SR⁶, (SO₂)NR⁶R⁷, OC₁₋₆alkylNR⁶(SO₂)R⁷, OC₀₋₆alkyl(SO₂)NR⁶R⁷, (SO)NR⁶R⁷, OC₁₋₆alkyl(SO)NR⁶R⁷, SO₃R⁶, NR⁶(SO₂)NR⁶R⁷, NR⁶(SO)R⁷, OC₁₋₆alkylNR⁶(SO)R⁷, OC₀₋₆alkylSO₂R⁶, SO₂R⁶, SOR⁶, C₃₋₆cycloalkyl, phenyl, a 5 or 6 membered heteroaromatic ring containing one or more heteroatoms independently selected from N, O, or S, or a 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O, or S which heterocyclic group may be saturated or unsaturated, and said phenyl ring or 5 or 6 membered heteroaromatic ring or 5 or 6 membered heterocyclic ring may optionally be fused with a 5 or 6 membered saturated, partially saturated or unsaturated ring containing atoms independently selected from C, N, O or S wherein any C₃₋₆cycloalkyl, phenyl, 5 or 6 membered heteroaromatic ring with one or two heteroatoms selected independently from N, O, or S or a 5 or 6 membered heterocyclic ring containing one or two heteroatoms selected independently from N, O, or S; may be optionally be substituted by one or more A;

R⁵ is hydrogen or C₁₋₆alkyl

R⁶ and R⁷ are independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl and C₁₋₆alkylNR⁸R⁹;

R⁶ and R⁷ may together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S, which heterocyclic ring may be optionally substituted by A and wherein a CH₂ group may optionally be replaced by a CO group; R⁸ and R⁹ are independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl and C₀₋₆alkylheteroaryl; R⁸ and R⁹ may together form a 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

Hal is halogen;

n is 0, 1, 2, 3 or 4;

A is halogen, oxo (=O), nitro, CHO, CN, OR⁶, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkylNR⁶R⁷, OC₁₋₆alkylNR⁶R⁷, CO₂R⁸, CONR⁶R⁷, NR⁶(CO)R⁶, O(CO)R⁶, COR⁶, SR⁶, (SO₂)NR⁶R⁷, (SO)NR⁶R⁷, SO₃R⁶, SO₂R⁶ or SOR⁶; as a free base or a salt, solvate or solvate of a salt thereof.

29. (Original) A compound according to claim 28, wherein

Y is CONR⁵;

X is N;

Q is C₁₋₆alkyl;

R⁴ is independently selected from CN, OR⁶, a 5 or 6 membered heteroaromatic ring containing one or more heteroatoms independently selected from N, O, or S, or a 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O, or S which heterocyclic group may be saturated or unsaturated, wherein any 5 or 6 membered heterocyclic ring containing one or two heteroatoms selected independently from N, O, or S; may be optionally be substituted by A;

R⁵ is hydrogen;

R⁶ is, C₁₋₆alkyl;

n is 1;

A is oxo (=O);

as a free base or a salt, solvate or solvate of a salt thereof.

30. (Original) A compound which is

3-Amino-6-bromo-*N*-(2-morpholin-4-ylethyl)pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-[2-(1*H*-imidazol-4-yl)ethyl]pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-[3-(1*H*-imidazol-1-yl)propyl]pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-(2-thien-2-ylethyl)pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-(thien-2-ylmethyl)pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-(2-methoxyethyl)pyrazine-2-carboxamide;

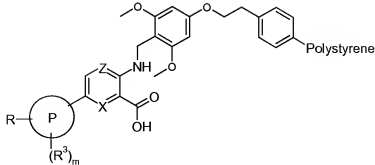
3-Amino-6-bromo-*N*-(3-methoxypropyl)pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-[3-(2-oxopyrrolidin-1-yl)propyl]pyrazine-2-carboxamide;

3-Amino-6-bromo-*N*-(cyanomethyl)pyrazine-2-carboxamide;

as a free base or a salt, solvate or solvate of a salt thereof.

31. (Original) A compound of formula **XXII**



(XXII)

wherein:

Z is N;

X is CH or N;

P is phenyl or a 5 or 6 membered heteroaromatic ring containing one or more heteroatoms selected from N, O or S and said phenyl ring or 5 or 6 membered heteroaromatic ring may optionally be fused with a 5 or 6 membered saturated, partially saturated or unsaturated ring containing atoms independently selected from C, N, O or S;

R is CHO, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkyl(SO₂)NR¹R², OC₀₋₆alkyl(SO₂)NR¹R², OC₁₋₆alkyl(SO)NR¹R², C₁₋₆alkyl(SO)NR¹R², C₀₋₆alkylNR¹(SO)R², OC₁₋₆alkylNR¹(SO)R², C₀₋₆alkylNR¹(SO₂)NR¹R², OC₁₋₆alkylNR¹(SO₂)R², C₀₋₆alkyl(SO₂)C₁₋₆alkylNR¹R², OC₀₋₆alkyl(SO₂)C₁₋₆alkylNR¹R², C₀₋₆alkyl(SO)C₁₋₆alkylNR¹R², OC₁₋₆alkyl(SO)C₁₋₆alkylNR¹R², C₀₋₆alkylSC₁₋₆alkylNR¹R², OC₁₋₆alkylSC₁₋₆alkylNR¹R², OC₁₋₆alkylOC₁₋₆alkyl, C₁₋₆alkylOC₁₋₆alkylNR¹R², OC₁₋₆alkylOC₁₋₆alkylNR¹R², C₀₋₆alkylCONR¹⁰R¹¹, OC₀₋₆alkylCONR¹R², OC₁₋₆alkylNR¹R², C₀₋₆alkylNR¹⁰(CO)R¹¹, OC₁₋₆alkylNR¹(CO)R², C₀₋₆alkylNR¹¹(CO)R¹⁰, C₀₋₆alkylCOR¹¹, OC₁₋₆alkylCOR¹, C₀₋₆alkylNR¹⁰R¹¹, C₀₋₆alkylO(CO)R¹¹, OC₁₋₆alkylO(CO)R¹, C₀₋₆alkylC(NR¹⁰)NR¹⁰R¹¹, C₀₋₆alkylC(NR¹¹)N(R¹⁰)₂, OC₀₋₆alkylC(NR¹)NR¹R², C₀₋₆alkylNR¹⁰(CO)OR¹¹, OC₁₋₆alkylNR¹(CO)OR², C₀₋₆alkylNR¹¹(CO)OR¹⁰, OC₁₋₆alkylCN, NR¹OR², C₀₋₆alkyl(CO)OR⁸, OC₁₋₆alkyl(CO)OR¹, NR¹(CO)NR¹R², NR¹(CO)(CO)R², NR¹(CO)(CO)NR¹R², OR¹² or SO₃R¹; R¹ and R² are independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylheterocycloalkyl, C₁₋₆alkylNR⁶R⁷, C₀₋₆alkylaryl and C₀₋₆alkylheteroaryl, wherein any C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylheterocycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl may be substituted by one or more A;

R¹ and R² may together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

R³ is independently selected from halogen, nitro, CHO, C₀₋₆alkylCN, OC₁₋₆alkylCN, C₀₋₆alkylOR⁶, OC₁₋₆alkylOR⁶, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkylNR⁶R⁷, OC₁₋₆alkylNR⁶R⁷, OC₁₋₆alkylOC₁₋₆alkylNR⁶R⁷, NR⁶OR⁷, C₀₋₆alkylCO₂R⁶, OC₁₋₆alkylCO₂R⁶, C₀₋₆alkylCONR⁶R⁷,

OC₁₋₆alkylCONR⁶R⁷, OC₁₋₆alkylNR⁶(CO)R⁷, C₀₋₆alkylNR⁶(CO)R⁷, O(CO)NR⁶R⁷, NR⁶(CO)OR⁷, NR⁶(CO)NR⁶R⁷, O(CO)OR⁶, O(CO)R⁶, C₀₋₆alkylCOR⁶, OC₁₋₆alkylCOR⁶, NR⁶(CO)(CO)R⁶, NR⁶(CO)(CO)NR⁶R⁷, SR⁶, C₀₋₆alkyl(SO₂)NR⁶R⁷, OC₁₋₆alkylNR⁶(SO₂)R⁷, OC₀₋₆alkyl(SO₂)NR⁶R⁷, C₀₋₆alkyl(SO)NR⁶R⁷, OC₁₋₆alkyl(SO)NR⁶R⁷, SO₃R⁶, C₀₋₆alkylNR⁶(SO₂)NR⁶R⁷, C₀₋₆alkylNR⁶(SO)R⁷, OC₁₋₆alkylNR⁶(SO)R⁷, OC₀₋₆alkylSO₂R⁶, C₀₋₆alkylSO₂R⁶, C₀₋₆alkylSOR⁶, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl and C₀₋₆alkylheteroaryl, wherein any C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl and C₀₋₆alkylheteroaryl may be optionally substituted by one or more A;

R⁶ and R⁷ are independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl and C₁₋₆alkylNR⁸R⁹;

R⁶ and R⁷ may together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S, which heterocyclic ring may be optionally substituted by A and wherein a CH₂ group may optionally be replaced by a CO group;

R⁸ and R⁹ are independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl and C₀₋₆alkylheteroaryl;

R⁸ and R⁹ may together form a 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

R¹⁰ is hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, C₀₋₆alkylaryl, C₀₋₆alkylheteroaryl or C₁₋₆alkylNR⁸R⁹;

R¹¹ is C₁₋₆alkylNR⁸R⁹;

R¹⁰ and R¹¹ may together form a 5 or 6 membered heterocyclic ring containing one or more heteroatoms selected from N, O or S, which heterocyclic ring may be optionally substituted by A;

A is halogen, oxo (=O), nitro, CHO, CN, OR⁶, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₀₋₆alkylC₃₋₆cycloalkyl, fluoromethyl, difluoromethyl, trifluoromethyl, fluoromethoxy, difluoromethoxy, trifluoromethoxy, C₀₋₆alkylNR⁶R⁷, OC₁₋₆alkylNR⁶R⁷, CO₂R⁸, CONR⁶R⁷, NR⁶(CO)R⁶, O(CO)R⁶, COR⁶, SR⁶, (SO₂)NR⁶R⁷, (SO)NR⁶R⁷, SO₃R⁶, SO₂R⁶ or SOR⁶;
m is 0, 1, 2, 3 or 4;

as a free base or a salt, solvate or solvate of a salt thereof.

32. (Original) A compound according to claim 31, wherein:

X is N;

P is phenyl;

R is C₀₋₆alkyl(SO₂)NR¹R²;

R¹ and R² may together form a substituted 5 or 6 membered heterocyclic ring containing one or more heteroatoms independently selected from N, O or S;

m is 0;

as a free base or a salt, solvate or solvate of a salt thereof.

33. (Original) A compound which is

Methyl 3-{[2,6-dimethoxy-4-(2-phenylethoxy)benzyl]amino}-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxylate polystyrene;

3-{[2,6-Dimethoxy-4-(2-phenylethoxy)benzyl]amino}-6-[4-(pyrrolidin-1-ylsulfonyl)phenyl]pyrazine-2-carboxylic acid polystyrene;

as a free base or a salt, solvate or solvate of a salt thereof.

34. (Cancelled).